

**Notice of Allowability**

Application No.

10/661,550

Examiner

Mohammad Ali

Applicant(s)

WHITE, NORMAN HENRY

Art Unit

3744

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 09/15/03.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☒ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance: Claims 1 and 5 are allowable because the prior art of record fails to disclose or suggest or teach the recited introducing the subsidiary cryogenic stream into the phase separator and subjecting the subsidiary cryogenic stream to a lower pressure than that of the storage vessel so as to cause the subsidiary cryogenic stream to boil and produce a boiling pool of a liquid fraction of the subsidiary cryogenic stream covering the heat exchanger and having a lower temperature than the cryogenic liquid stream, thereby to subcool the cryogenic liquid stream; and controlling flow of the subsidiary cryogenic stream by suspending the flow when the liquid fraction is at a predetermined level, above that of the heat exchanger, reestablishing the flow after liquid level of the liquid fraction has fallen due to the boil off thereof, and between the suspension of the flow and the reestablishment thereof, temporarily reestablishing the flow to remove warm and vaporized liquid; and controlling flow of the subsidiary cryogenic stream by suspending the flow when the liquid fraction is at a predetermined level, above that of the heat exchanger, reestablishing the flow after liquid level of the liquid fraction has fallen due to the boil off thereof, and between the suspension of the flow and the reestablishment thereof, temporarily reestablishing the flow to remove warm and vaporized liquid (see claim 1); a control system responsive to the signals generated by the liquid level detector and the temperature signals to operate the remotely operated valve to assume a closed position, suspending the flow, when the height of the liquid fraction is at a re determine

level above the heat exchanger, to assume an open position, reestablishing the flow, after the height of the liquid fraction has fallen due to boil off of the liquid fraction, and to temporarily assume the open position in response to a temperature indicative that warm liquid and vapor has formed at the inlet of the pump (see claim 5) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is 703-308-5032. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Esquivel Denise can be reached on 703-308-2597. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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*Md. Mohiuddin Ali*  
Mohammad M. Ali  
November 19, 2004

*William D. Decker*  
WILLIAM D. DECKER  
PATENT EXAMINER  
GROUP 3400